APR 1 1989

FEMA-209 130408

FLOOD INSURANCE STUDY

UPSON COUNTY, GEORGIA AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
THOMASTON, CITY OF	130408
UNINCORPORATED AREAS	130407

MAY 17, 1989

Federal Emergency Management Agency

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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Flood Insurance Rate Map

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FLOOD INSURANCE STUDY

UPSON COUNTY, GEORGIA
AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the geographic area of Upson County, Georgia, including the City of Thomaston and the Unincorporated Areas of Upson County (hereinafter referred to collectively as Upson County), and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the state (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by the U.S. Geological Survey (USGS) (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Inter-Agency Agreement No. EMW-85-E-1823. This study was completed in January 1987.

1.3 Coordination

On February 26, 1985, a coordination meeting was held to inform the community of the nature of the Flood Insurance Study, to solicit community input, to discuss flood-prone areas that will be included in the study, and to establish procedures for coordination between FEMA, the community, and the Study Contractor. Representatives of Upson County, FEMA, and the Study Contractor attended the meeting.

On July 11, 1988, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the geographic area of Upson County, Georgia. The area of study is shown on the Vicinity Map (Figure 1).

Flooding caused by overflow of Potato Creek, Potato Creek Tributary, Town Branch, Drake Branch, Tenmile Creek, Bell Creek, Norris Creek, and Raines Branch was studied in detail.

Areas having low development potential or minimal flood hazards were previously studied using approximate analyses. The results were shown on the Flood Hazard Boundary Map for Upson County, Georgia (Reference 1) and are incorporated into this Flood Insurance Study.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through January 1992. The scope and methods of study were proposed to and agreed upon by FEMA and Upson County.

2.2 Community Description

Upson County is in west-central Georgia and is bordered by Pike and Lamar Counties on the north; Lamar, Monroe, and Crawford Counties on the east; Talbot and Taylor Counties on the south; and Meriwether County on the west. The major transportation routes serving Upson County are State Route 3 and U.S. Route 19, which run north and south; State Routes 36 and 74, which run east and west; and the Norfolk Southern Railway. The 1980 population of Upson County was reported to be 25,998 (Reference 2).

The average temperatures of the area are 47.6 degrees Fahrenheit (^{o}F) in the winter and 79.4^{o}F in the summer. The average annual rainfall is 49.07 inches (Reference 3).

Major industries in Upson County include the manufacture of textiles, clothing, and wood products. The only significant development in the floodplain is along Potato Creek Tributary and the upper reaches of Town Branch and Bell Creek; however, future development is likely to occur in low-lying areas of other streams included in this study.

2.3 Principal Flood Problems

Major floods in Upson County result from intense rainfall from thunderstorms associated with the passage of frontal systems. The highest known flood occurred on March 3, 1971, at the USGS stream-gaging station on Potato Creek at State Route 74 near Thomaston, which was operated from 1938 to 1973. The maximum elevation of this flood was 613.9 feet National Geodetic Vertical Datum of 1929 (NGVD), with a peak discharge of 10,600 cubic feet per second (cfs). This flood discharge has a recurrence interval of about 35 years. Other high floods occurred in 1925 and 1929

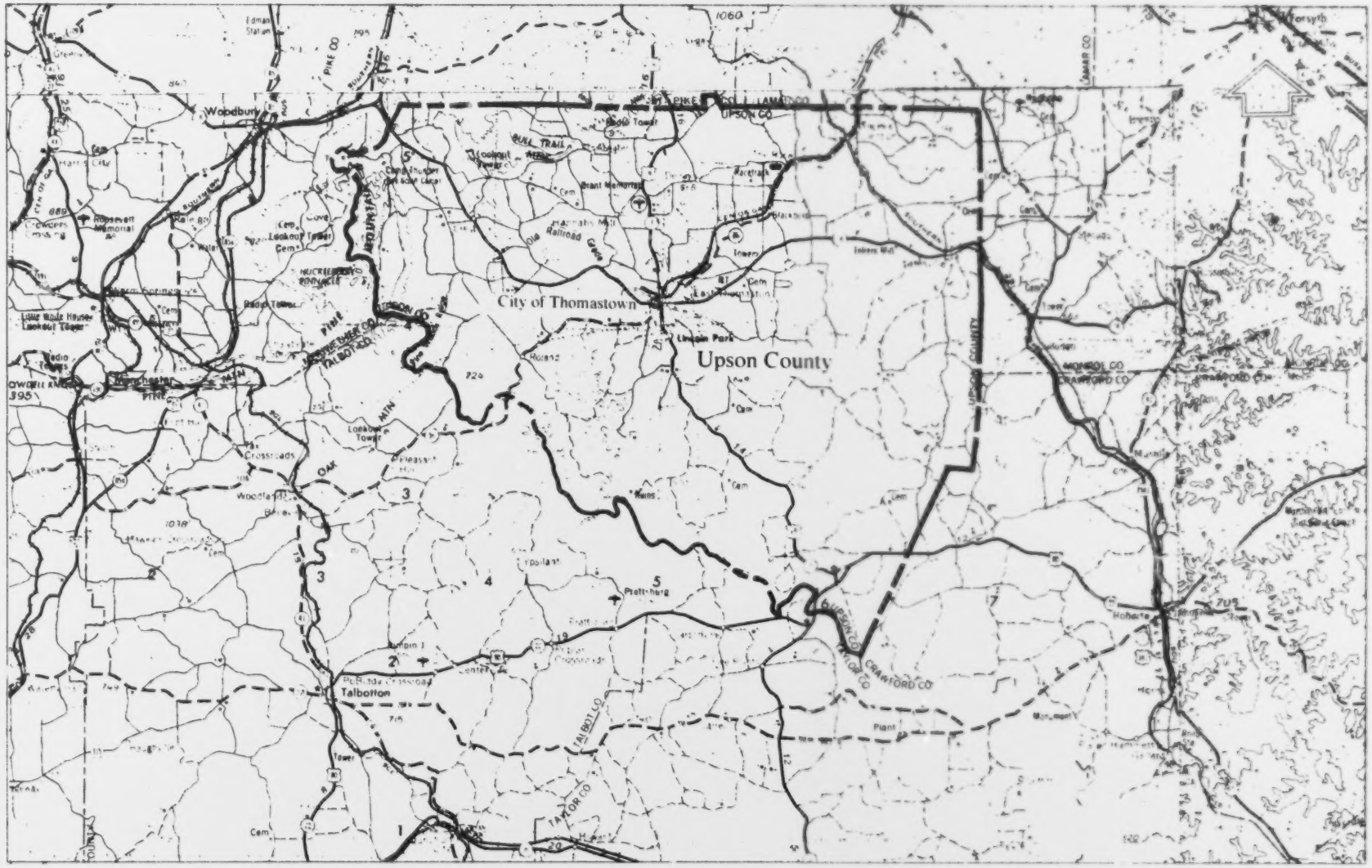


FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

UPSON COUNTY, GA
AND INCORPORATED AREAS

APPROXIMATE SCALE

5 0 5 10 15 MILES

VICINITY MAP

and are thought to have been higher than the 1971 flood, based on records at nearby USGS gaging stations; however, records of elevations or discharges for those floods were not available for the study area (Reference 4). A major flood occurred on Town Creek in April 1982. Elevations and discharges recorded at the State Route 36 gage indicate the recurrence interval of the flood is approximately 25 years.

2.4 Flood Protection Measures

Several small dams exist within the county, but they do not provide substantial protection against flooding for the study area.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

The discharge-frequency relationship for the 100-year flood was developed and adjusted for urbanization using USGS techniques (Reference 4). Land use for the watersheds was determined from USGS topographic maps, recent city maps, and by field inspections. The percentages of impervious area (used where greater than 10 percent) and area served by storm sewers were determined from land use in the watersheds according to USGS methods (Reference 5).

The 100-year discharges on Drake Branch downstream of Smoky Hollow Lake were adjusted for storage provided by Thomaston Mills Reservoir and Smoky Hollow Lake using USGS computer program A697 (reservoir routing) (Reference 6). The discharges at the cross sections downstream were determined by combining the Smoky Hollow Lake discharge hydrograph with

the discharge hydrograph for the intervening area, with both hydrographs having the same starting time. The reservoir hydrograph was not attenuated because of the short distance between the reservoir outflow and the mouth of Drake Branch and also the small change in drainage area in that distance. The discharge hydrograph for the intervening area was determined according to USGS methods (Reference 7).

Peak discharge-drainage area relationships for the 100-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 100-YEAR
POTATO CREEK		
at State Route 36	194	14,200
at State Route 74	186	13,600
at Delray Road	140	13,000
TENMILE CREEK		
at mouth	21.3	4,930
at Jeff Davis Road	20.3	4,790
about 2.77 miles upstream of mouth	15.8	4,200
about 3.70 miles upstream of mouth	11.3	3,440
at Willingham Spring Road	8.7	2,960
NORRIS CREEK		
at Hannahs Mill Road	3.9	1,880
at Atwater Road	3.0	1,600
POTATO CREEK TRIBUTARY		
at mouth	1.4	1,110
about 2,200 feet upstream of mouth	1.0	930
about 3,700 feet upstream of mouth	0.9	808
at Jeff Davis Road	0.5	555
DRAKE BRANCH		
at mouth	1.6	1,060
at Smoky Hollow Lake outlet	1.1	575

TABLE 1 - SUMMARY OF DISCHARGES (Continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 100-YEAR
BELL CREEK		
at confluence of Town Branch	8.1	3,340
about 2,300 feet downstream of Old Talbotton Road	4.5	2,440
at Old Talbotton Road	3.5	2,280
just downstream of Raines Street	2.5	2,060
at U.S. Route 19	1.7	1,260
TOWN BRANCH		
at mouth	3.5	2,290
at Davis Lake Road	3.1	2,120
at State Route 36	2.3	1,770
RAINES BRANCH		
about 4,100 feet upstream of mouth	2.6	1,470
at U.S. Route 80	1.9	1,240
about 2.17 miles upstream of mouth	1.3	1,020

Elevations for the 100-year floods of Smokey Hollow Lake and Thomaston Mills Reservoir are shown in Table 2.

TABLE 2 - SUMMARY OF ELEVATIONS

FLOODING SOURCE AND LOCATION	PEAK ELEVATION (FEET NGVD) 100-YEAR
SMOKEY HOLLOW LAKE	
along shoreline	685.4
THOMASTON MILLS RESERVOIR	
along shoreline	725.6

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross-section data for the streams studied were obtained by field surveys. Additional cross sections were estimated from adjacent surveyed sections and topographic maps. All bridges and culverts were surveyed to obtain elevations and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Maps.

Channel roughness coefficients (Manning's "n") used in the hydraulic computations were based on field observation of channel and floodplain areas. Roughness values for the main channels varied from 0.035 to 0.085 depending on width, depth of flow, curves, and vegetation. Roughness values for the floodplains varied from 0.040 for the grassy areas to 0.175 for the densely wooded areas. Water-surface elevations for the 100-year floods were computed using WSPRO, a step-backwater computer program (Reference 8). Water-surface profile elevations through culverts were computed using the USGS computer program A526 (References 9 and 10).

The starting elevations for the 100-year flood profiles on Potato, Bell, and Raines Creeks were determined by step-backwater studies using synthetic cross sections downstream. The starting elevations for the 100-year flood profile for Tenmile Creek, Potato Creek Tributary, and Drake Branch were obtained from the 100-year flood profile on Potato Creek at the mouths of those streams. The starting elevation of the 100-year profile for Norris Creek was obtained from the 100-year flood profile for Tenmile Creek at its mouth. The starting elevation of the 100-year profile on Town Branch was obtained from the 100-year profile for Bell Creek at its mouth.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the NGVD. Elevation reference marks used in this study are shown on the map and described in the exhibit labeled Elevation Reference Marks.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages State and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24000 with contour intervals of 10 and 20 feet (Reference 11).

The 100-year floodplain boundaries are shown on the Flood Insurance Rate Map. On this map, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, A99, V, and VE). Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 100-year floodplain boundary was delineated using the Flood Hazard Boundary Map for Upson County (Reference 1).

4.2 Floodways

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights.

Floodways have not been shown or computed for this community. Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than a 1.0-foot increase in the base flood elevations at any point within the community.

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 100- and 500-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The current Flood Insurance Rate Map presents flooding information for the geographic area of Upson County. Previously, separate Flood Hazard Boundary Maps and/or Flood Insurance Rate Maps were prepared for each flood-prone incorporated community and the unincorporated areas of the county. Historical data relating to the maps prepared for each community are presented in Table 3, Community Map History.

7.0 OTHER STUDIES

This Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for Upson County (Reference 1) and the Flood Insurance Rate Map for the City of Thomaston, Georgia (Reference 12).

The Flood Insurance Study in progress for Meriwether County, Georgia (Reference 13) is in agreement with this study.

The Flood Insurance Rate Map published for Talbot County, Georgia (Reference 14) is in agreement with this study.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
THOMASTON, CITY OF	APRIL 11, 1975		SEPTEMBER 29, 1986	
UNINCORPORATED AREAS	JULY 30, 1976		MAY 17, 1989	

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

UPSON COUNTY, GA AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 1371 Peachtree Street, NE., Suite 736, Atlanta, Georgia 30309.

9.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Upson County, Unincorporated Areas, Georgia, July 1976.

2. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Georgia, Washington, D.C., January 1982.

3. Bowden Publications, Map of Thomaston and Upson County, Georgia, 1981, revised 1985.

4. U.S. Department of the Interior, Geological Survey, Water Resources Investigations Report 78-137, Floods in Georgia, Magnitude and Frequency, McGlone Price, 1978.

5. ————, Geological Survey, Water Resources Investigations Report 77-57, Preliminary Flood-Frequency Relations for Urban Streams in Metropolitan, Atlanta, Georgia, H.G. Golden, 1977.

6. ————, Geological Survey, Gulf Coast Hydroscience Center, Computer Program A697 for Downstream and Upstream Reservoir Routing, Bay St. Louis, Mississippi, M.E. Jennings, 1977.

7. ————, Geological Survey, Water Resources Investigations Report 86-4004, Simulation of Flood Hydrographs for Georgia Streams, E.J. Inman, 1985.

8. U.S. Department of Transportation, Federal Highway Administration, Report No. FHWA/RD-86/108, Bridge Waterways Analysis Model: Research Report, J.O. Shearman, W.H. Kirby, V.R. Snyder, and H.N. Flippo, July 1986.

9. U.S. Department of the Interior, Geological Survey, Water Resources Investigations, Preparation and Input Data for Automatic Computations of State-Discharge Relations at Culverts, H.F. Matthai, H.E. Stull, and Jacob Davidian, 1968.

10. ————, Geological Survey, Water Resources Investigations, Measurement of Peak Discharge at Culverts by Indirect Methods, G.L. Bodhaine, 1976.

11. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Interval 10 Feet: Fickling Mill, Georgia, 1971; Contour Interval 20 Feet: Thomaston, Georgia, 1971; Lincoln Park, Georgia, 1971; Sunset Village, Georgia, 1971; Roland, Georgia, 1971; and Woodbury, Georgia, 1971.

12. Federal Emergency Management Agency, Flood Insurance Rate Map, City of Thomaston, Upson County, Georgia, September 1986.

13. ----------, Flood Insurance Study, Meriwether County, Unincorporated Areas, Georgia, in progress.

14. ----------, Flood Insurance Rate Map, Talbot County, Unincorporated Areas, Georgia, September 1986.

ELEVATION REFERENCE MARKS

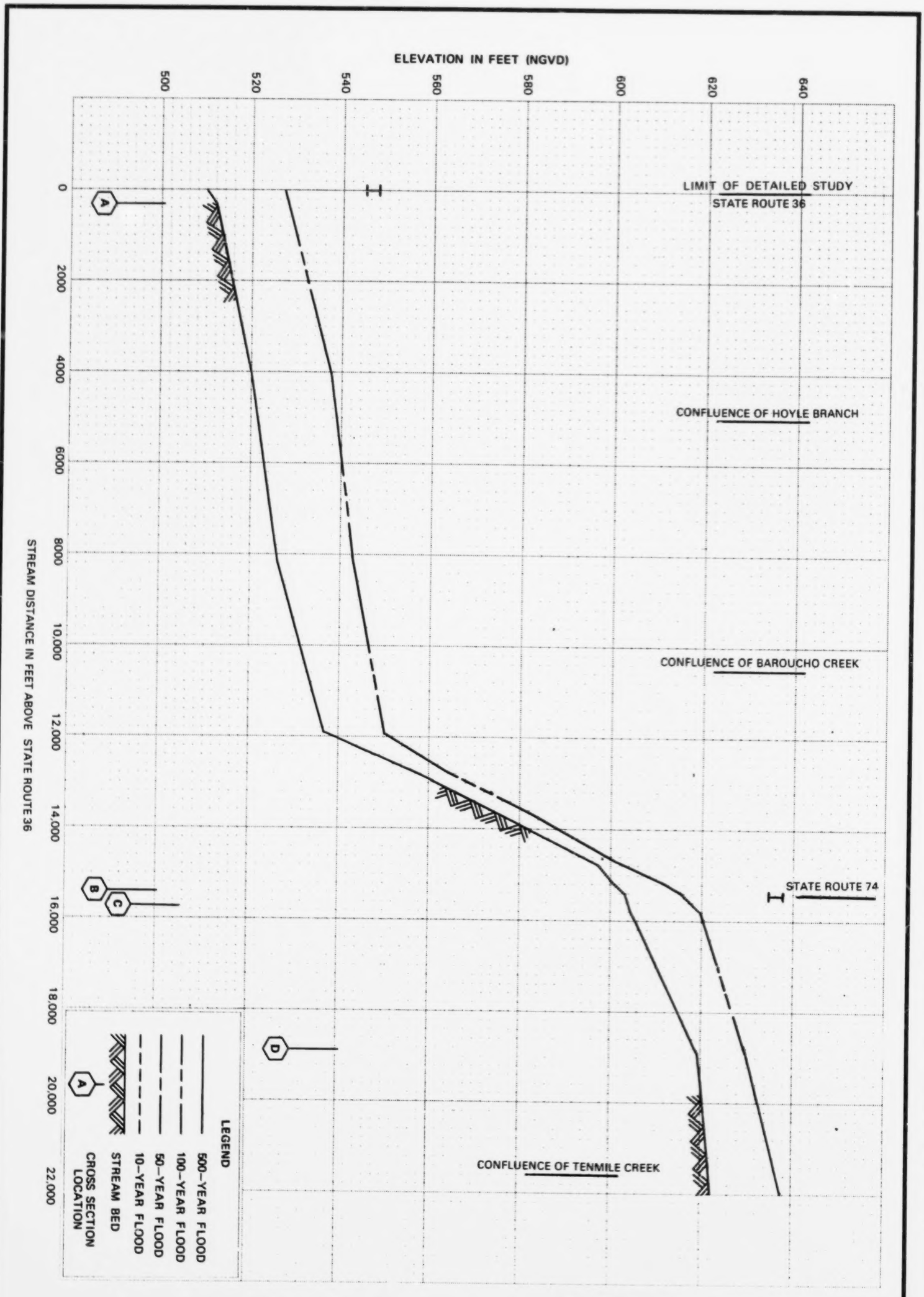
REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1	0035	741.07	chiseled square on top of upstream northeast wingwall of Willingham Spring Road bridge over Tenmile Creek
2	0045	552.34	chiseled square on top of east upstream curb at end of State Route 36 bridge over Potato Creek
3	0055	708.89	painted high point on upstream northeast rough masonry abutment of Fallen Bridge Road bridge over Norris Creek
4	0055	721.29	chiseled square on top of downstream southeast end of headwall of culvert for Norris Creek under Atwater Road
5	0060	669.57	chiseled square on top of downstream southwest curb of Delray Road bridge over Potato Creek
6	0065	653.82	chiseled square on top of upstream curb at northeast end of Hannahs Mill Road bridge over Potato Creek
7	0065	657.84	top of painted nut set horizontally in side of 120-inch corrugated metal pipe culvert for Potato Creek Tributary under Moore Crossing Road
8	0065	711.04	top of painted square on downstream concrete headwall of 72-inch corrugated metal pipe culvert for Potato Creek Tributary under Jeff Davis Road
9	0065	683.63	chiseled square on top of downstream southwest curb of Jeff Davis Road bridge over Tenmile Creek
10	0065	660.07	chiseled square on top of downstream southeast abutment of U.S. Route 19 bridge over Potato Creek

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
11	0065	659.32	chiseled square on top of upstream southwest abutment of Moore Crossing Road bridge over Potato Creek
12	0065	641.18	chiseled square on top of upstream southwest end of headwall of culvert for Drake Branch under Unnamed Road, near pump station approximately 250 feet east of U.S. Route 19
13	0065	680.15	top of nail in 18-inch sweetgum tree located about 70 feet northeast of North Bethel Street bridge over Drake Branch
14	0065	636.99	chiseled square on top of downstream southeast wingwall of State Route 74 bridge over Potato Creek
15	0065	660.81	chiseled square on top of upstream northwest end of headwall of culvert for Town Branch under South Green Street
16	0065	761.04	standard disk dated 1933 and stamped "TT-3K" set in northwestern corner of north portico of Upson County Courthouse, approximately 150 feet southwest of intersection of Center Street and Main Street
17	0130	627.97	chiseled square on top of concrete post of sewer manhole located 115 feet southwest of culvert for Town Branch on downstream side of Davis Lake Road
18	0130	594.23	chiseled square on top of downstream southwest end of headwall of culvert for Bell Creek under Old Talbotton Road
19	0130	637.72	chiseled square on top of downstream headwall of culvert for Bell Creek under U.S. Route 19

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
20	0165	416.28	standard disk dated 1970 and stamped "123 AWT" located 0.8 foot west of east end of upstream culvert headwall for Raines Branch under U.S. Route 80



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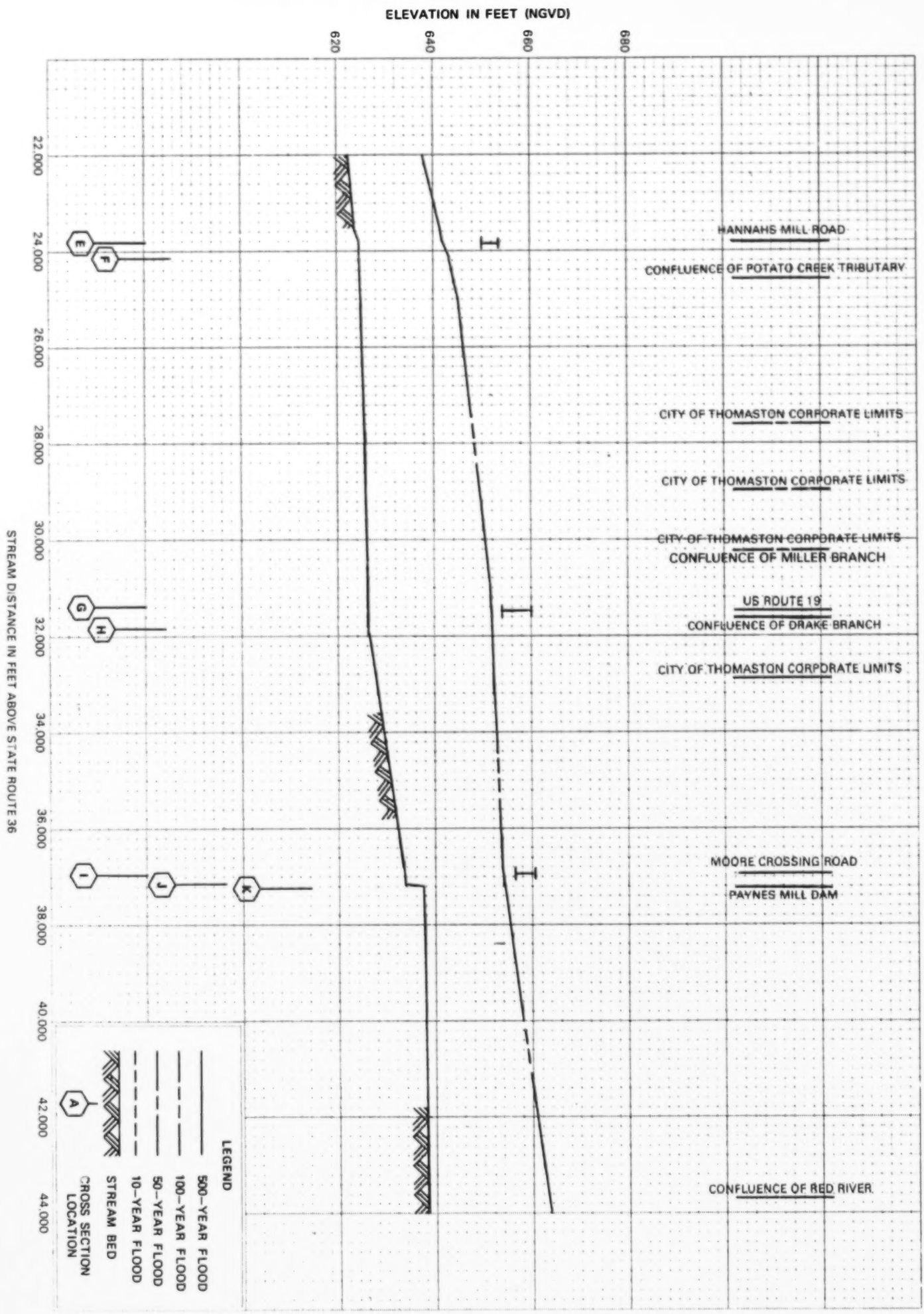
01P	FEDERAL EMERGENCY MANAGEMENT AGENCY UPSON COUNTY, GA AND INCORPORATED AREAS	FLOOD PROFILES POTATO CREEK



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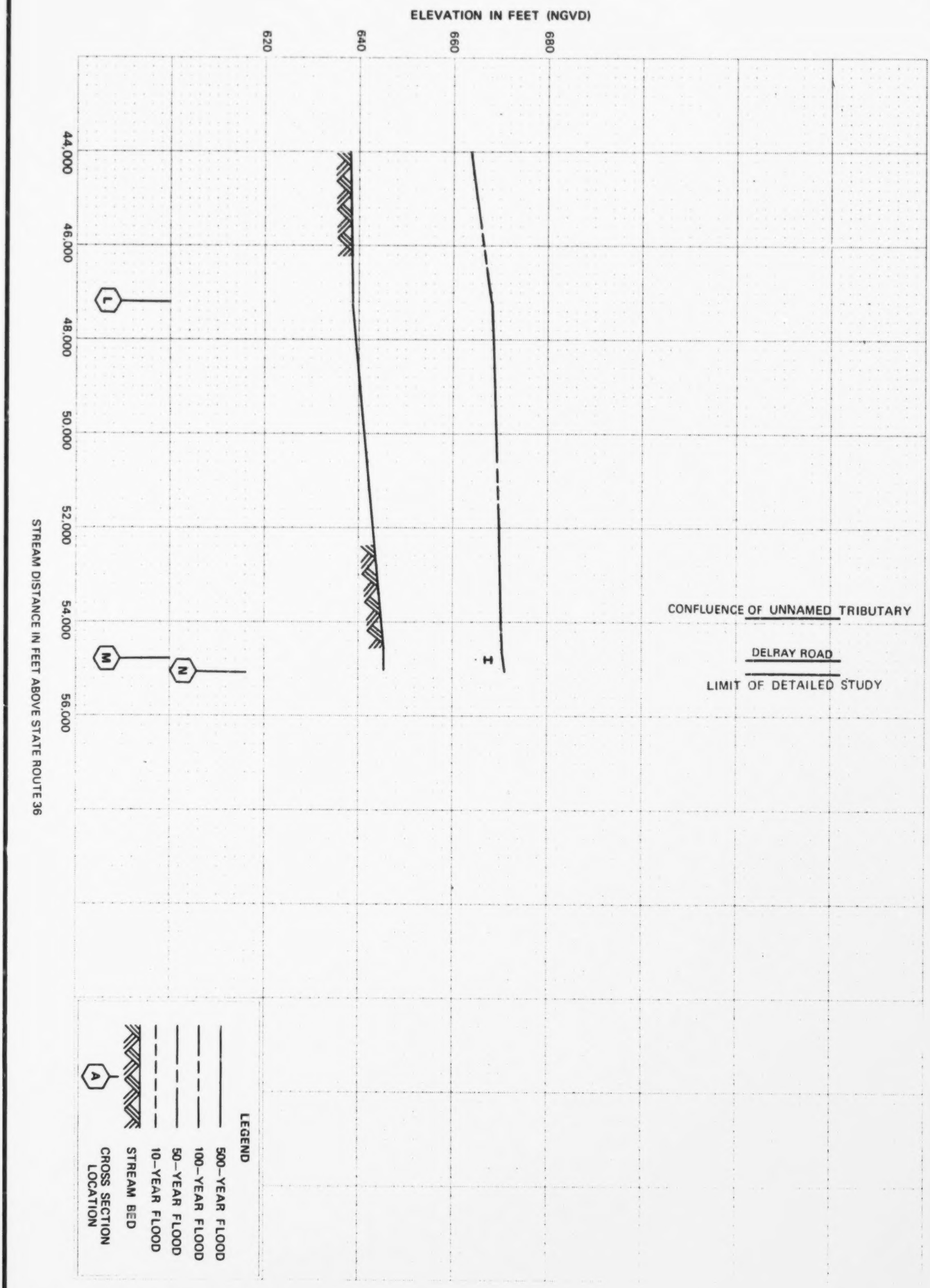
02P

FEDERAL EMERGENCY MANAGEMENT AGENCY

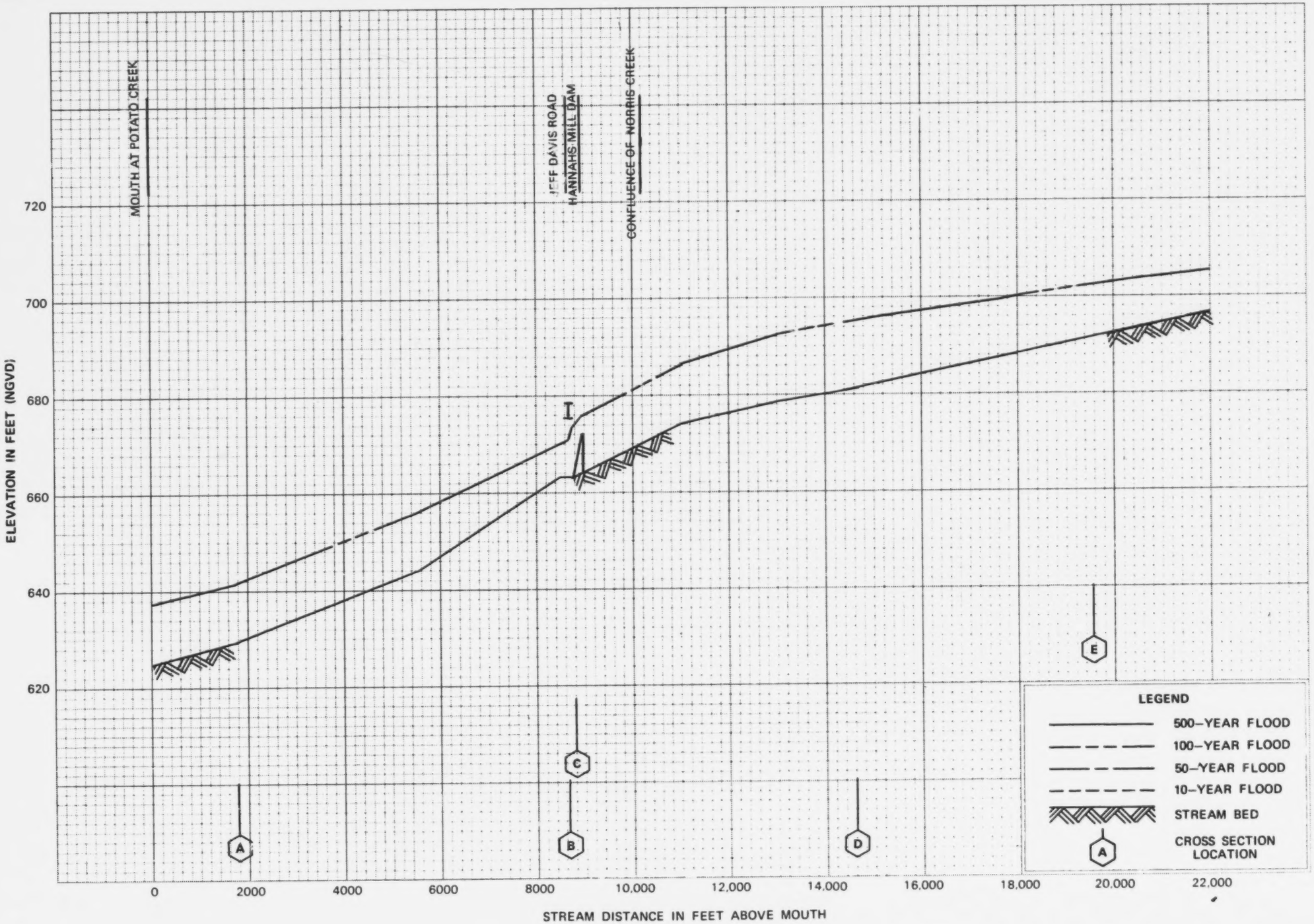
UPSON COUNTY, GA AND INCORPORATED AREAS

FLOOD PROFILES

POTATO CREEK



03P	FEDERAL EMERGENCY MANAGEMENT AGENCY UPSON COUNTY, GA AND INCORPORATED AREAS	FLOOD PROFILES POTATO CREEK



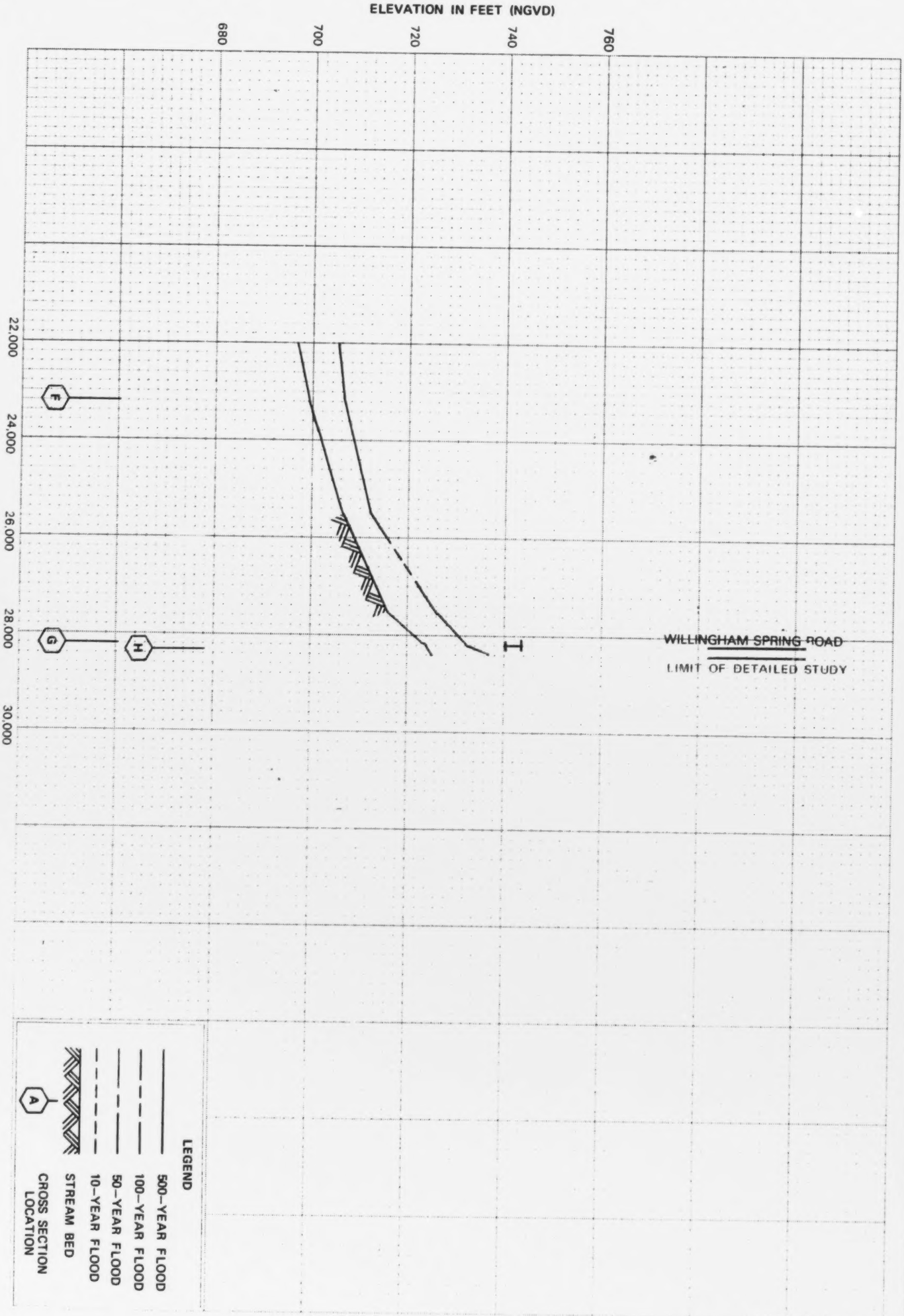
FLOOD PROFILES

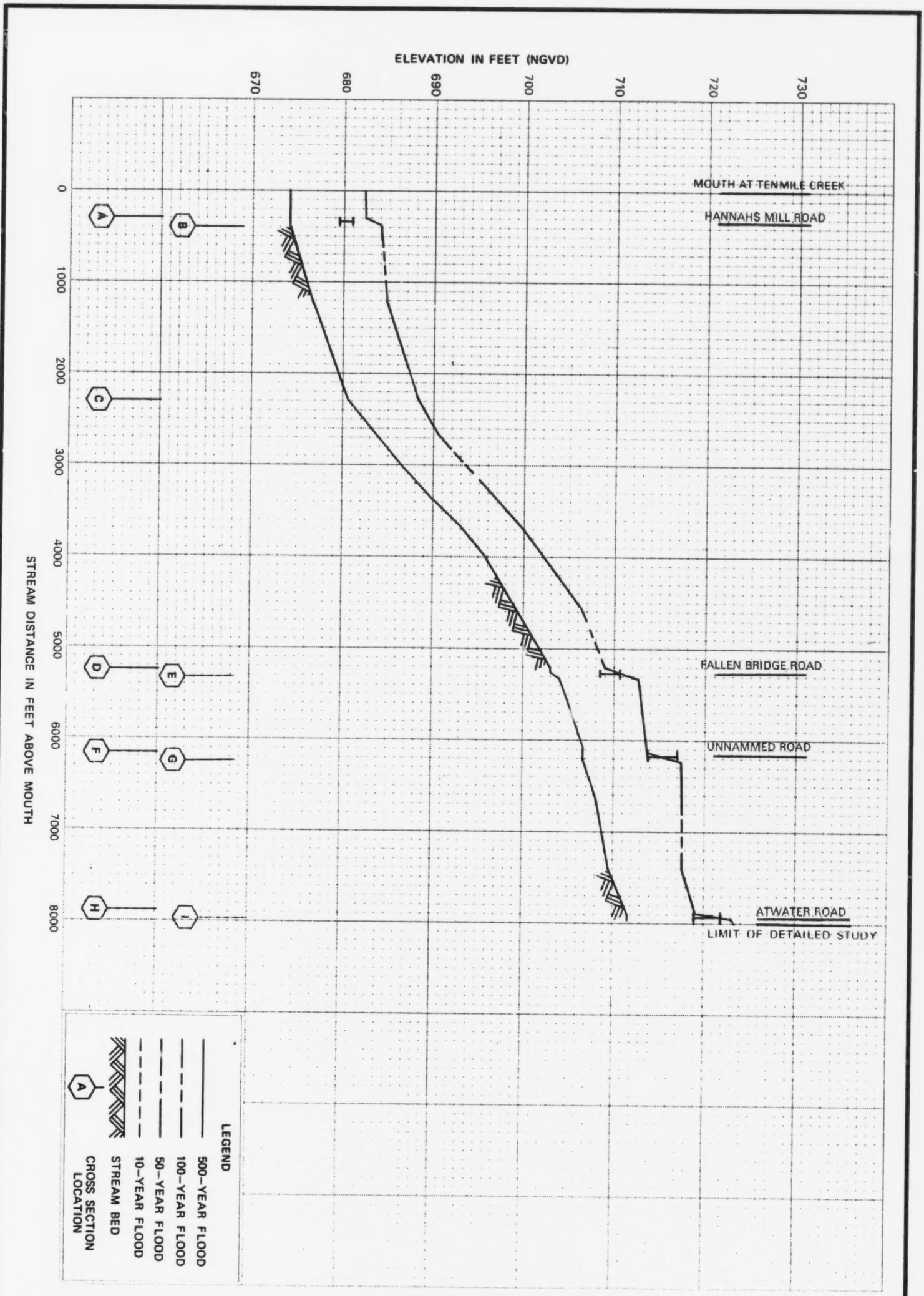
TENMILE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

UPSON COUNTY, GA
AND INCORPORATED AREAS

04P


ELEVATION IN FEET (NGVD)
680
700
720
740
760
STREAM DISTANCE IN FEET ABOVE MOUTH
22,000
24,000
26,000
28,000
30,000
F
G
H
I
WILLINGHAM SPRING ROAD
LIMIT OF DETAILED STUDY
LEGEND
500-YEAR FLOOD
100-YEAR FLOOD
50-YEAR FLOOD
10-YEAR FLOOD
STREAM BED
A
CROSS SECTION LOCATION



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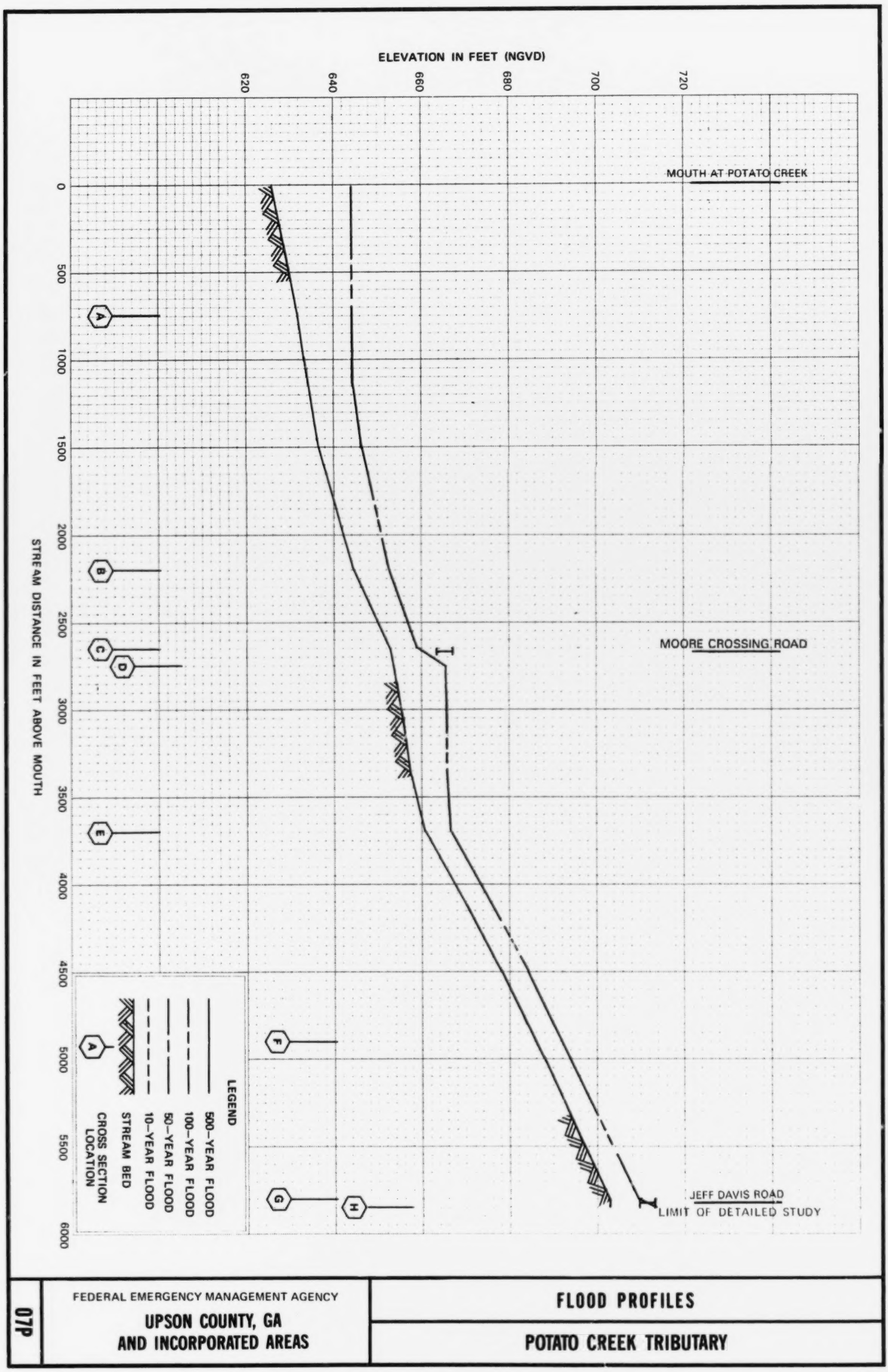
06P

FEDERAL EMERGENCY MANAGEMENT AGENCY

UPSON COUNTY, GA AND INCORPORATED AREAS

FLOOD PROFILES

NORRIS CREEK



07P

FEDERAL EMERGENCY MANAGEMENT AGENCY

UPSON COUNTY, GA AND INCORPORATED AREAS

FLOOD PROFILES

POTATO CREEK TRIBUTARY

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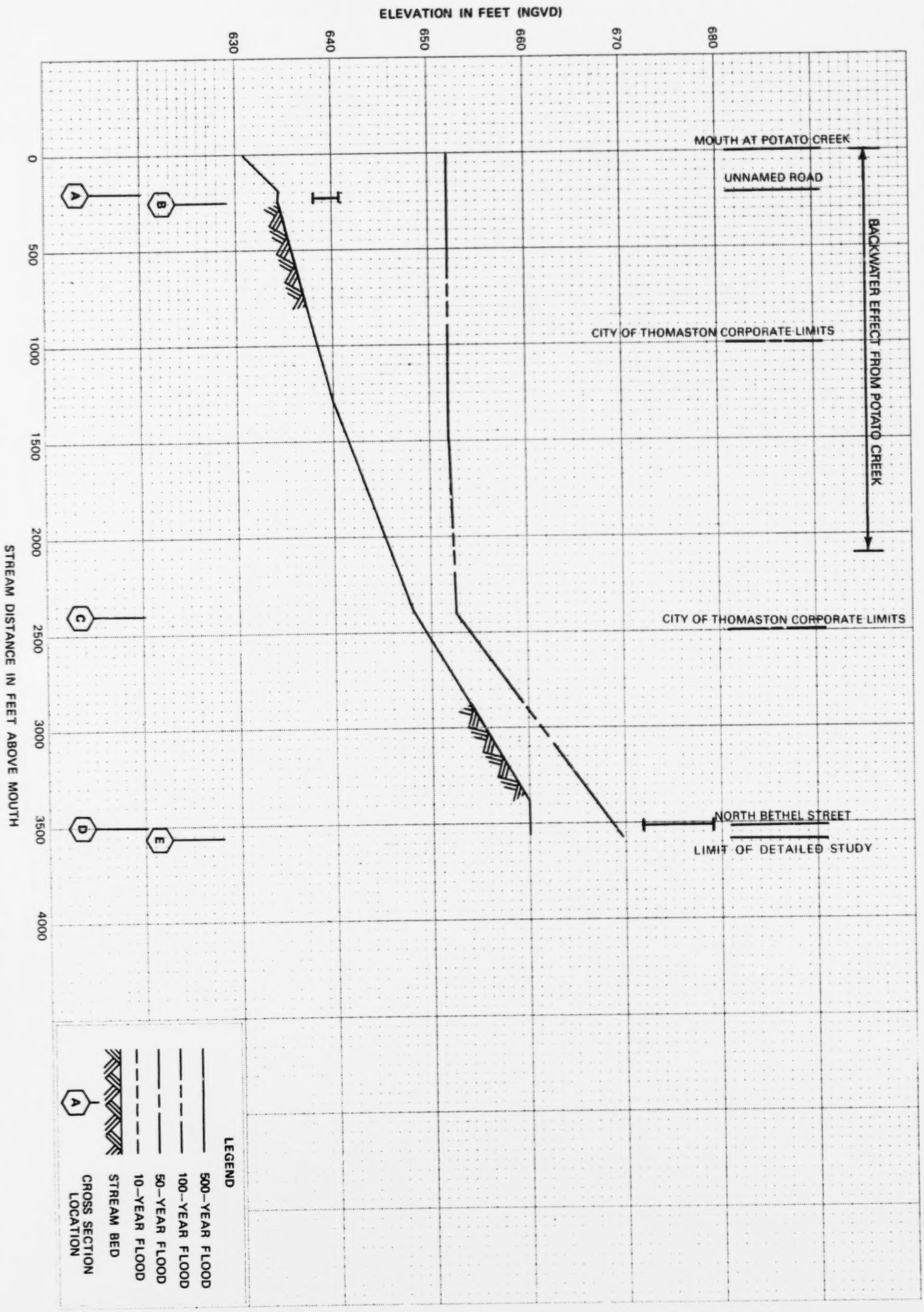

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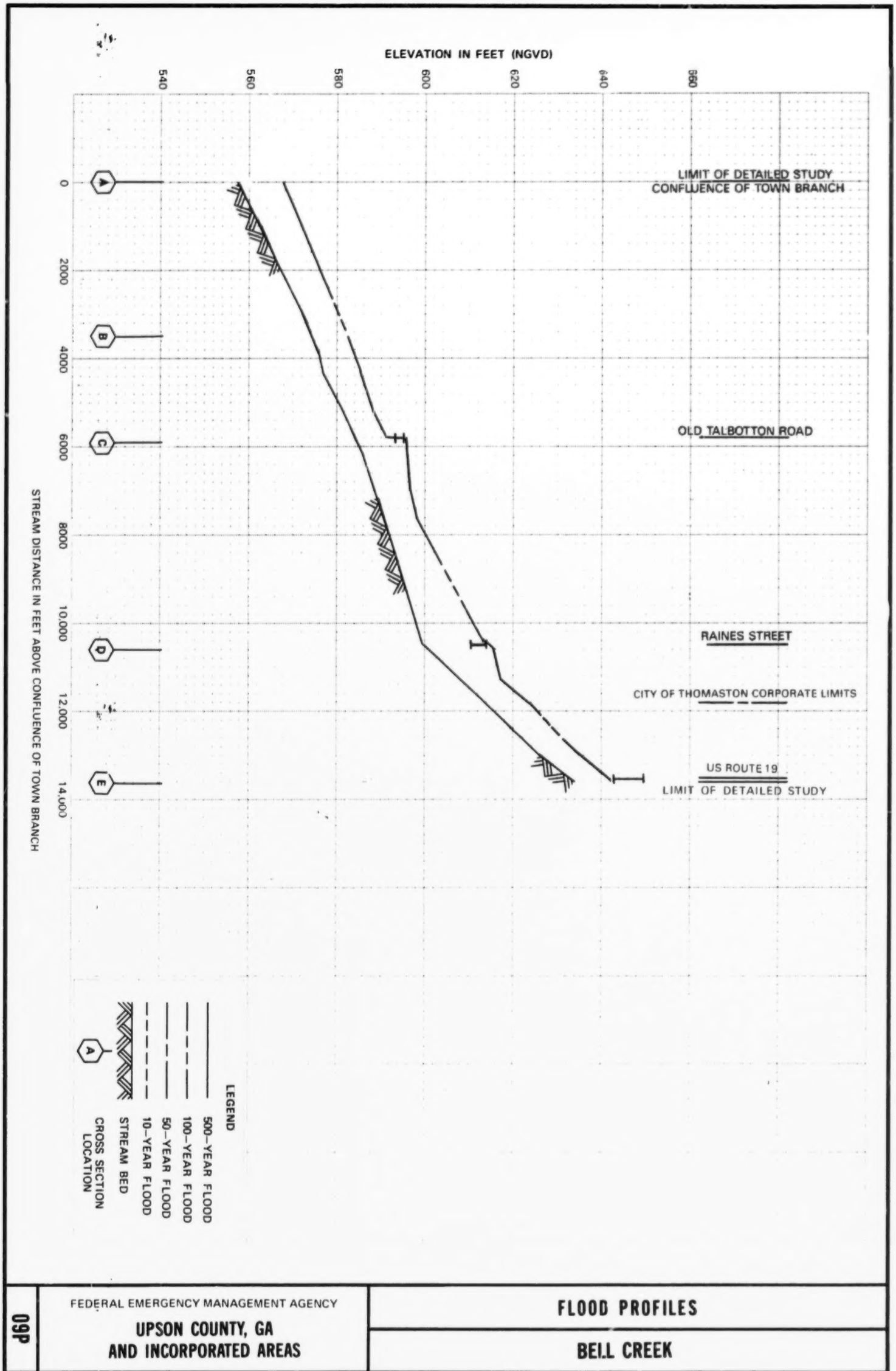
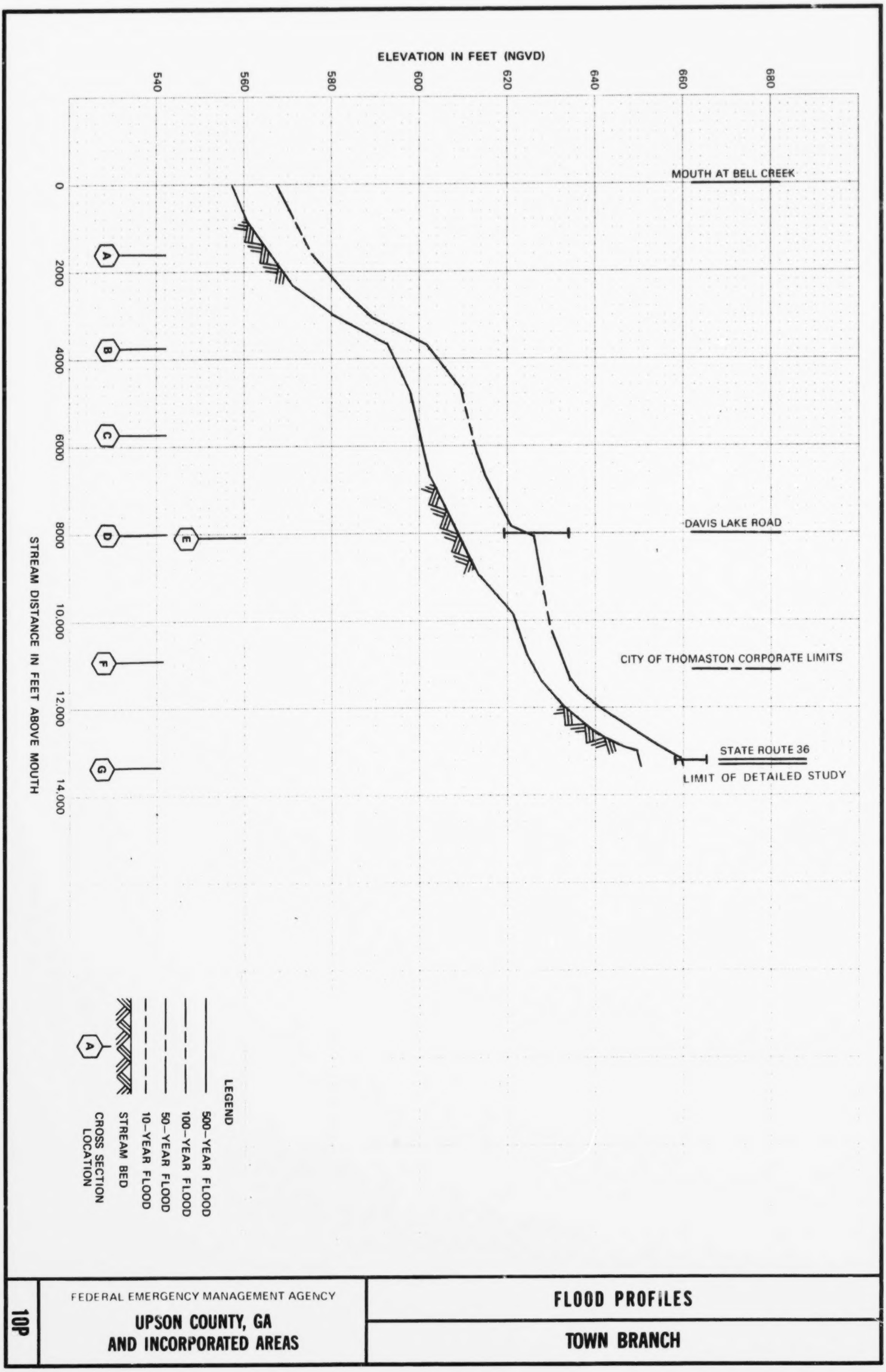
08P	FEDERAL EMERGENCY MANAGEMENT AGENCY **UPSON COUNTY, GA AND INCORPORATED AREAS**	**FLOOD PROFILES** **DRAKE BRANCH**



09P	FEDERAL EMERGENCY MANAGEMENT AGENCY UPSON COUNTY, GA AND INCORPORATED AREAS	FLOOD PROFILES BELL CREEK



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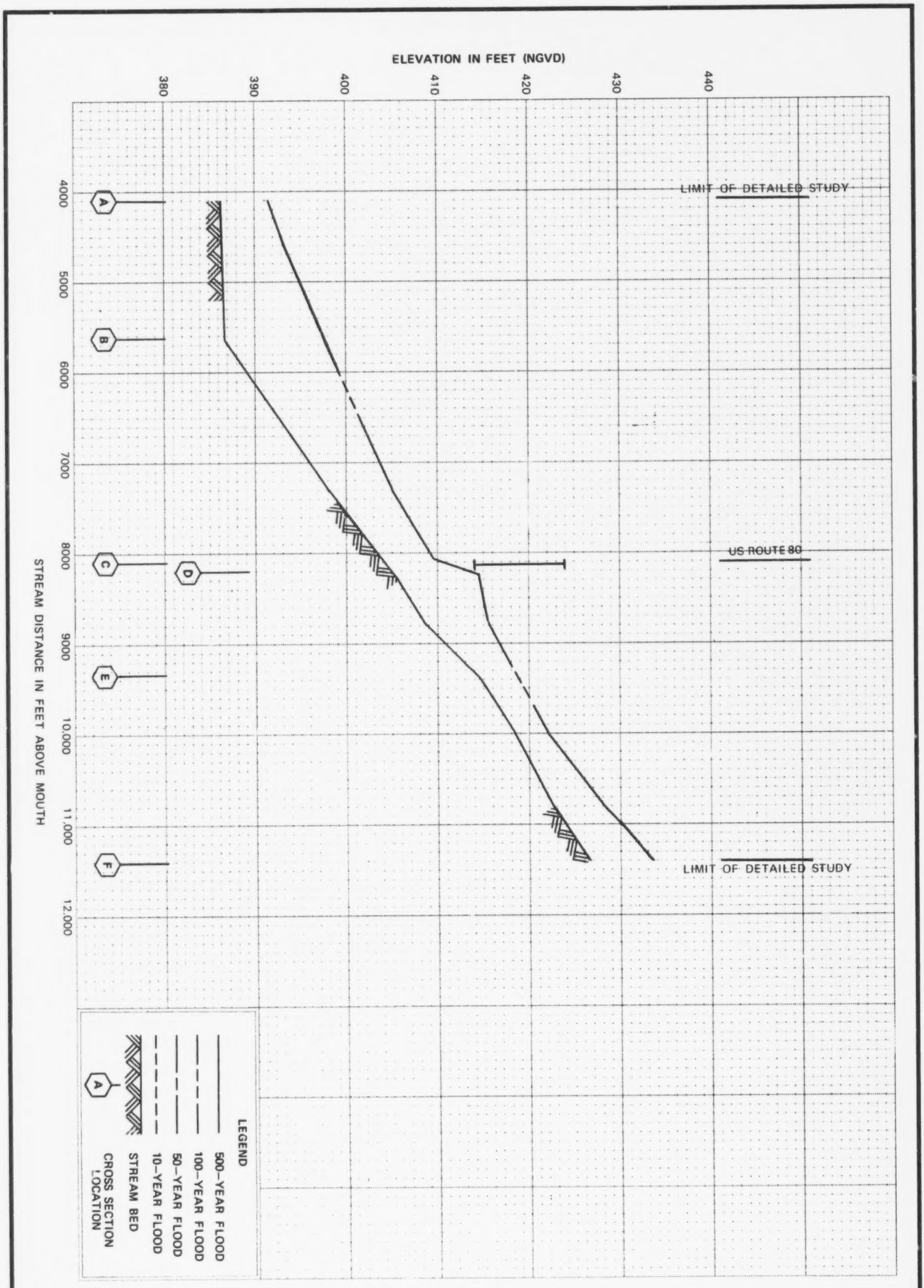
10P	FEDERAL EMERGENCY MANAGEMENT AGENCY UPSON COUNTY, GA AND INCORPORATED AREAS	FLOOD PROFILES TOWN BRANCH



11P	FEDERAL EMERGENCY MANAGEMENT AGENCY UPSON COUNTY, GA AND INCORPORATED AREAS	FLOOD PROFILES RAINES BRANCH